

In the Claims

1-29 (canceled).

30 (Original). A method of assessing the efficiency of a modulator of a T-cadherin polypeptide for the treatment of obesity, said method comprising administering said modulator to an animal model for obesity, wherein a determination that said modulator ameliorates a representative characteristic of obesity in said animal model indicates that said modulator is a drug for the treatment of obesity.

31 (Original). The method of claim 30, wherein said animal model is selected from the group consisting of a fa/fa rat, an ob/ob mouse, a db/db mouse, a leptin deficient mouse and a leptin-receptor deficient mouse.

32 (Original). The method of claim 30, wherein said representative characteristic is selected from the group consisting of the Body Mass Index (BMI), the body weight and the percentage of body fat.

33 (Original). The method of claim 30, wherein a reduction of 10% or more of the body weight indicates that said modulator is a drug for the treatment of obesity.

34 (Original). A method of assessing the efficiency of a modulator of a T-cadherin polypeptide for the treatment of type II diabetes, said method comprising administering said modulator to an animal model for type II diabetes, wherein a determination that said modulator ameliorates a representative characteristic of type II diabetes in said animal model indicates that said modulator is a drug for the treatment of type II diabetes.

35 (Original). The method of claim 34, wherein said animal model is selected from the group consisting of a C57/BLKsJ diabetic mouse, a KKA(y) mouse, a Nagoya-Shibata-Yasuda (NSY) mouse and a db/db mouse.

36 (Original). The method of claim 34, wherein said representative characteristic is selected from the group consisting of the fasting plasma glucose (FPG) level, the postprandial glucose level, the fructosamine and glycated hemoglobin (HbA1c) level, the total cholesterol level, the HDL cholesterol level, the LDL cholesterol level and the triglyceride level.

37 (Original). The method of claim 34, wherein said representative characteristic is the HbA1c level.

38 (Original). The method of claim 37, wherein a reduction in HbA1c levels of at least 0.5 % versus placebo indicates that said modulator is a drug for the treatment of type II diabetes.

39 (Original). The method of claim 30, wherein said modulator is an agonist.

40 (Original). The method of claim 30, wherein said T-cadherin polypeptide is a human T-cadherin.

41 (Original). The method of claim 40, wherein said T-cadherin polypeptide is selected from the group consisting of:

- a) a polypeptide comprising SEQ ID NO: 1;
- b) a polypeptide comprising amino acid 23 to 713 of SEQ ID NO: 1;
- c) a polypeptide comprising amino acid 23 to 693 of SEQ ID NO: 1;
- d) a polypeptide comprising amino acids 140 to 713 of SEQ ID NO: 1;
- e) a polypeptide comprising amino acids 140 to 693 of SEQ ID NO: 1;
- f) a mutein of any of (a) to (e), wherein the amino acid sequence has at least 80%, 90%, 95%, 96%, 97%, 98% or 99% identity to at least one of the sequences in (a) to (e);

- g) a mutein of any of (a) to (e) which is encoded by a nucleic acid which hybridizes to the complement of a DNA sequence encoding any of (a) to (e) under highly stringent conditions; and
- h) a mutein of any of (a) to (e) wherein any changes in the amino acid sequence are conservative amino acid substitutions of the amino acid sequences in (a) to (e).

42. (New) A method of identifying candidate drugs for the treatment of a disorder selected from the group consisting of a metabolic disorder, a gynecologic disorder, a chronic inflammatory disorder and a liver or renal disorder comprising contacting a T-cadherin polypeptide with a candidate modulator of T-cadherin.

43 (New). The method of claim 42, wherein said candidate modulator is selected from the group consisting of natural ligands, small molecules, aptamers, antisense mRNAs, small interfering RNAs, soluble forms of T-cadherin and antibodies.

44 (New). The method of claim 42, wherein said disorder is a metabolic disorder selected from the group consisting of obesity, type II diabetes, insulin resistance, hypercholesterolemia, hyperlipidemia, dyslipidemia and syndrome X.

45 (New). The method of claim 42, wherein said disorder is obesity.

46 (New). The method of claim 42, wherein said disorder is type II diabetes.

47 (New). The method of claim 42, wherein said disorder is syndrome X.

48 (New). The method of claim 42, wherein said modulator is an agonist.

49 (New). The method of claim 48, wherein said candidate modulator is selected from the group consisting of a natural ligand, a small molecule and an aptamer.

50 (New). The method of claim 42, wherein said disorder is a metabolic disorder selected from the group consisting of anorexia and cachexia.

51 (New). The method of claim 42, wherein said modulator is an antagonist.

52 (New). The method of claim 42, wherein the activity of said T-cadherin polypeptide is assessed by measuring binding of said T-cadherin polypeptide to Acrp30.

53 (New). The method of claim 51, wherein the activity of said T-cadherin polypeptide is assessed by measuring binding of said T-cadherin polypeptide to Acrp30.

54 (New). The method of claim 52, wherein said Acrp30 is a hexameric species of Acrp30.

55 (New). The method of claim 52, wherein said Acrp30 is a high molecular weight species of Acrp30.

56 (New). The method of claim 53, wherein said Acrp30 is a high molecular weight species of Acrp30.

57 (New). The method of claim 42, wherein said T-cadherin polypeptide is a human T-cadherin.

58 (New). The method of claim 57, wherein said T-cadherin polypeptide is selected from the group consisting of:

- a) a polypeptide comprising SEQ ID NO: 1;
- b) a polypeptide comprising amino acid 23 to 713 of SEQ ID NO: 1;
- c) a polypeptide comprising amino acid 23 to 693 of SEQ ID NO: 1;

- d) a polypeptide comprising amino acids 140 to 713 of SEQ ID NO: 1;
- e) a polypeptide comprising amino acids 140 to 693 of SEQ ID NO: 1;
- f) a mutein of any of (a) to (e), wherein the amino acid sequence has at least 80%, 90%, 95%, 96%, 97%, 98% or 99% identity to at least one of the sequences in (a) to (e);
- g) a mutein of any of (a) to (e) which is encoded by a nucleic acid which hybridizes to the complement of a DNA sequence encoding any of (a) to (e) under highly stringent conditions; and

a mutein of any of (a) to (e) wherein any changes in the amino acid sequence are conservative amino acid substitutions of the amino acid sequences in (a) to (e).

59 (New). A method of treating a disorder selected from the group consisting of a metabolic disorder, a gynecologic disorder, a chronic inflammatory disorder and a liver or renal disorder comprising the administration of a composition comprising a modulator of a T-cadherin polypeptide to an individual having said disorder.

60 (New). The method of claim 59, wherein said disorder is a metabolic disorder selected from the group consisting of obesity, type II diabetes, insulin resistance, hypercholesterolemia, hyperlipidemia, dyslipidemia, syndrome X, anorexia and cachexia.

61 (New). The method of claim 60, wherein said modulator is used in combination with a known drug for the treatment of said disorder.

62 (New). The method of claim 59, wherein said modulator is an agonist.

63 (New). The method of claim 60, wherein said disorder is a metabolic disorder selected from the group consisting of anorexia and cachexia.

64 (New). The method of claim 61, wherein said disorder is a metabolic disorder selected from the group consisting of anorexia and cachexia.

65 (New). The method of claim 64, wherein said modulator is an antagonist.